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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/505,369

05/05/2005

Peter Nordlof

1505-1054

7137

466 7590 02/22/2008

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EXAMINER

PIGGUSH, AARON C

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

02/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/505,369	Applicant(s) NORDLOF, PETER	
	Examiner Aaron Piggush	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster (US 4,146,830) in view of Wyss (US 5,838,142).

With respect to claims 1 and 17, Foster discloses a device for reducing the output current of a primary switched battery charger, which charger comprises an input DC power circuit (see middle of top portion of Fig. 1 and abstract), a transformer (seen at the top of Fig. 1) and a control unit for modulating the DC input power (no. 24 in Fig. 1, which accepts control inputs from no. 25 and 26 in Fig. 1), characterized in that it comprises means for measuring pulse ratio of switch pulses on the output side of the charger (col 4 ln 10-30 and Fig. 7), means for measuring peak value of output voltage (col 3 ln 30-57, abstract, and no. 34 and 35 in Fig. 1), means for differentially amplifying the signals measured (no. 30 and 49 in Fig. 3), means for integrating voltage/current of the differentially amplified signals (no. 27 and 52 in Fig. 3), wherein the integrated voltage/current is used for modulating the input DC power in order to reduce the output current (col 6 ln 27-68 and Fig. 7).

Please note that although a high frequency transformer is not explicitly disclosed by Foster, the battery charger shown in Fig. 1 normally uses a high frequency transformer because it enables high frequency operation, and therefore allows a smaller size to power ratio.

Wyss discloses the use of a high frequency transformer in a battery charger (col 5 ln 2-12 and Fig. 3), in order to create a smaller circuit with a high power output.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a high frequency transformer in the device of Foster, as did Wyss, so that a smaller size to power ratio could be attained for the circuit.

The method steps are carried out during normal operation of the device above.

With respect to claim 2, Foster does not expressly disclose wherein there is a switch between the means for differentially amplifying and the means for integrating.

Wyss discloses a circuit with a switch between an integrating means and a differentiating means (no. 21 in Fig. 2), in order to provide greater control of a weighting factor in the overall control of the charger.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a switch in between the integrating and differentially amplifying means in the device of Foster, as did Wyss, so that greater control of weighing factors could be attained for the control of the supply current.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Piggush whose telephone number is (571)272-5978. The examiner can normally be reached on Monday-Friday 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2838

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Adolf Berhane/
Adolf Berhane
Primary Examiner
Art Unit 2838

/A. P./